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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/653,353	08/28/2003	William Charles Sahm	8350.2341	3027
22852	7590	05/04/2005	EXAMINER	
			SWARTHOUT, BRENT	
			ART UNIT	PAPER NUMBER
			2636	

DATE MAILED: 05/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/653,353	SAHM ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Brent A Swarthout	2636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 11 April 2005.  
 2a) This action is **FINAL**.      2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-21 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-21 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____.
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____.

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

a. Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henderson et al. in view of Clegg.

Henderson discloses a method and device for displaying positional information for a work machine comprising displaying a terrain map of a geographic area in plan or profile views (col.7, line 24), monitoring position of a ground engaging tool and identifying elevation of the tool (col.5, lines 39-51), and continuously updating the display when there is a change in the actual surface elevation due to engagement with the tool (col.5, line 63- col.6, line 6), except for specifically stating that the terrain map includes a plurality of elevation segments.

Clegg discloses a display device showing work tool with respect to a terrain map, wherein the map includes plural terrain elevations (Fig. 4).

Furthermore, Clegg discloses that plural elevations of a geographic site can be displayed relative to tool elevation328 (Fig.5). As shown in the Figure, 322 represents a desired elevation to be graded, and 324 and 326 represent elevations slightly below and above the preferred elevation.

Thus, Clegg clearly satisfies the claim limitation of displaying plural elevation segments.

It would have been obvious to display plural terrain elevations as suggested by Clegg in conjunction with a display as disclosed by Henderson, in order to customize a display depending on what a desired site geography was supposed to look like, and to allow an operator to see how close a grading tool was to a preferred elevation and whether or not it was within tolerances.

Regarding claim 2, Henderson teaches that site map is updated based on the work tool engaging the terrain (col. 5, line66- col.6, line 2).

Regarding claim 3, Henderson teaches identifying and displaying desired surface configuration with respect to actual configuration (col. 5, lines 38-51).

Regarding claim 4, Henderson teaches display of ground tool position with respect to desired configuration (col.5, line 38-51).

Regarding claim 5, ground tool has sensing means (col. 6, lines 25-30).

Regarding claim 6, backfilling would result in updating display (col.5, line 63-col.6, line2; col.7, line 26).

Regarding claim 9, Henderson teaches storing desired surface configuration (col. 3, lines 27-30).

Regarding claim 12, since Henderson teaches that positioning system on the machine is used to provide machine or tool position, and that the machine comprises plural portions including boom, stick and

bucket (col. 6, lines 18-20), choosing to use plural sensors would have been obvious, merely depending on whether positioning of less than a few centimeters accuracy was desired.

Regarding claim 14, Henderson teaches that the work machine can use traction device and housing (Fig. 4).

2. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

3. Regarding applicant's remarks filed with the response on 4-11-05, on page 2 it is stated that neither Henderson or Clegg disclose all the claimed features. However, the combined teachings of the two references disclose all the claimed features.

On page 3 applicant states that Henderson does not disclose monitoring tool position, identifying elevation of the tool and updating display of elevation of tool. However, as clearly depicted in Fig. 6, Henderson discloses elevation of tool 610 with

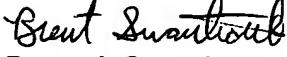
respect to preferred grading elevations and position of tool along the grade, and the system inherently updates the tool display corresponding to the movement of the tool.

On page 4 it is stated that Fig. 4 is just a profile of grading, not an actual display. However, the profile in Fig. 4 is displayed on display 320 in fig. 4, including tool elevation, preferred grade elevation 322, and tolerance elevations 324, 326.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brent A Swarthout whose telephone number is 571-272-2979. The examiner can normally be reached on M-F from 6:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff Hofsass, can be reached on 571-272-2981. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Brent A Swarthout  
Examiner  
Art Unit 2636

**BRENT A. SWARTHOUT**  
**PRIMARY EXAMINER**